SUMMARY

The Facility Stabilization mission consists of B-Plant, WBS 1.4.1.1, Project Baseline Summary (PBS) TP01; Waste Encapsulation and Storage Facility (WESF), WBS 1.4.2.1, PBS TP02; Plutonium-Uranium Extraction (PUREX) Facility, WBS 1.4.3.1, PBS TP03; 300 Area/Special Nuclear Materials, WBS 1.4.4.1, PBS TP04; Plutonium Finishing Plant (PFP) Deactivation, WBS 1.4.5.1, PBS TP05; PFP Stabilization, WBS 1.4.5.2, PBS TP06; PFP Vault Management WBS 1.4.5.3, PBS TP07; Transition Project Management, WBS 1.4.6.1, PBS TP12; K Basin Deactivation, WBS 1.4.7.1, PBS TP09; Accelerated Deactivation, WBS 1.4.8.4, PBS TP10; 324/327 Facility Transition, WBS 1.4.10.1, PBS TP08; and Hanford Surplus Facility Program (300 Area Revitalization), WBS 1.4.11.1, PBS TP14, projects.

The team supporting B Plant 221-B canyon deactivation activities, completed packaging and loadout of approximately thirty 4'x4'x8' boxes of radioactive waste and ten drums of mixed waste from the canyon deck five weeks ahead of schedule. More than 500 personnel entries were made into the canyon with no personal contamination. Forty-five end points were signed off in March, bringing the total number closed to 897 (51 percent) for the project.

Construction activities related to Project W-059, “B Plant Ventilation Safety Upgrade,” are steadily progressing, maintaining approximately one week ahead of schedule status. Other significant progress includes completing deactivation of the B Plant Aqueous Make-Up forty-five days ahead of schedule, deactivating vessels TK-9-1, E-5-2 and E-20-2 on schedule and transmitting the B Plant Preclosure Work Plan to Ecology meeting Tri-Party Agreement milestone M-20-21A one year ahead of schedule.

The WESF Emergency Ion Exchange System was declared operational on March 20, three days ahead of schedule. On the same day, WESF’s GAP analysis for the Integrated Safety Management System was completed, also three days ahead of schedule.

The delay in the Waste Acid Treatment System (WATS) Phase II and 303K RCRA field activities continued for a second month. Preparation of a Toxic Air Pollutant (TAP) Permit Notice of Construction was completed and transmitted to Ecology. The schedule and cost impact to the project because of this delay will be documented through the baseline change control process.

PFP continues to focus on recovery from the May 14, 1997, Room 40 chemical over pressurization incident, the RL Fissile Material Movement Restriction (FMMR) Readiness Assessment on Group I (lab and vault maintenance) operations, and responding to the PHMC internal Facilities Evaluation Board (FEB) evaluation.

Detailed design planning for Project W-460, “Plutonium Stabilization and Handling (PuSH),” was completed on schedule during March. The update of the conceptual design

report estimate to support the FY 2000 project revalidation in late April 1998 was also completed on schedule.

The first of two 327 Legacy Waste campaigns began with the packaging of 47 one-gallon waste buckets into ten concrete lined drums on schedule. The second processing is planned in the May to June time frame.

The 324/327 Stabilization/Deactivation Project Management Plan (PMP) was delivered on schedule. The successful completion of the PMP represents the culmination of a significant and coordinated planning effort.

Slight progress was made with the B Cell project, which included completion of the quality process review, size reduction (hot work) activities beginning with Tank 119 and the completion of three airlock entries to install a turntable, load out waste and decontaminate the Radiochemical Engineering Cells (REC) airlock. Despite these efforts, the B Cell project continued to slip further behind schedule. Current estimates indicate the work scope associated with the May 1999 Tri-Party Agreement milestone M-89-02, “Complete Removal of Equipment and Mixed Waste from B Cell” is now approximately 10 months behind schedule.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, FO, and RL) shows that 22 milestones (96 percent) were completed on or ahead of schedule and one (4 percent) was completed late. Two FY 1997 milestones are overdue, with one forecasted to be complete by May 31, 1998 and the other by September 30, 2000.

ACCOMPLISHMENTS

- Completed the B Plant Preclosure Work Plan 21 days ahead of schedule. (TRP-98-614) and submitted it to Ecology one year ahead of schedule. (TRP-99-606, M-20-21A).

- Completed deactivation of B Plant Aqueous Make-Up 45 days ahead of schedule. (TRP-98-615, M-82-05).

- Completed deactivation of vessels TK-9-1, E-5-2 and E-202 on schedule. (Planned)

- Signed 45 B Plant deactivation endpoints; 897 of 1,776 (52 percent) closed to date. (Planned)

- Completed packaging and loadout of approximately 30 4'x4'x8' boxes of radioactive waste and 10 drums of mixed waste from the B Plant canyon deck ahead of schedule. (Planned)

- Completed WESF Emergency ION Exchange System three days ahead of schedule. (TRP-98-704, PA FS2.1.1)

- Completed WESF Gap Analysis and implementation plan for Integrated Safety Management System three days ahead of schedule. (TRP-98-705, PA FS4.1.1)

- Completed the first of two 327 Legacy Waste campaigns on schedule; loaded 10 concrete lined drums with 47 waste buckets. (Planned)

- Completed the 324/327 Stabilization/Deactivation Project Management Plan on schedule. (TRP-98-901, PA FS5.1.1)

COST PERFORMANCE ($M):

	BCWP	ACWP	VARIANCE
Facility Stabilization	$ 70.9	$ 77.7	($ 6.8)

The $6.8 million (10 percent) unfavorable cost variance is primarily attributed to advanced authorization to perform work in support of Defense Nuclear Facility Safety Board (DNFSB) Recommendation 94-1. Baseline change request (BCR) FSP-98-003, which adds this work scope to the FY 1998 baseline, is being revised.

SCHEDULE PERFORMANCE ($M):

	BCWP	BCWS	VARIANCE
Facility Stabilization	$ 70.9	$ 76.7	($ 5.8)

The $5.8 million (8 percent) unfavorable schedule variance is primarily attributed to delays with the B-Plant Canyon deactivation, 324 B-Cell activities and the PFP fissile material movement restriction (FMMR).

ISSUES

1) **PFP FMMR.** The self-imposed restriction has been in effect 15 months. Affected activities include cementation of bulk plutonium-bearing materials, thermal stabilization of oxides, and Segment #4 duct terminal clean out. Cost and schedule impacts are expected as a result of the work restriction.

   Strategy/Status: The ten-day RL Readiness Assessment of Phase I was completed and Phase I was declared acceptable for restart. Six findings and 13 observations were identified. The formal restart plan has been submitted. A plan of action is being prepared to identify scope and depth of the Phase II Operational Readiness Review.

2) **Tank 241-Z-361 Unreviewed Safety Question (USQ).** A USQ related to Tank 241-Z-361 was declared. Preliminary estimates to support this activity are $3.5 million in FY 1998 and $1.0 million in FY 1999. The FY 1998 MYWP does not include this work scope.

Strategy/Status: The Justification for Continued Operation (JCO) is being revised based on DNFSB comments prior to resubmission to RL. Existing controls to permit work on or near the tank will be modified following approval of the JCO. The BCR (FSP-98-004R1) adding the necessary scope and funds to initiate resolution of the USQ was approved.

3) **Complete Removal of Equipment and Mixed Waste from B Cell (M-89-02).** Although fire hazards analysis compliance requirements for combustible material loading limits have been met, the inability to remove grout containers from B Cell has further delayed this project, which is now ten months behind schedule. Successful completion of Tri-Party Agreement M-89-02, due May 1999 will not be achieved.

Strategy/Status: The quality process review was completed. Size reduction in the cell commenced with Tank 119 and other larger cell debris. The quality process plan and ALARA reviews were completed for loading/shipping the 3-82B Cask from the 324 Building to the 200 Area Low-Level Waste Burial Grounds. Three airlock entries were completed to install a turntable, load waste and decontaminate the REC airlock.

4) **B Cell Grouted Containers:** An evaluation of existing data determined the majority of the waste stream should be classified as remote-handled transuranic (RH TRU) waste. There is no established disposal or storage path for this RH TRU. Inability to ship grouted containers would significantly increase the cost and schedule of this project.

Strategy/Status: A study, “B Cell Path Forward Alternatives,” has been initiated for the grout containers. The study will analyze alternate short term storage options, potential long term RH TRU paths, decontamination possibilities and maintenance items that can be moved up to minimize the impact to the overall B Cell schedule.

COST VARIANCE ANALYSIS: ($ 6.8M)

WBS/PBS **Title**

1.4.1/TP01 B PLANT
Description and Cause: The favorable cost variance ($1.6M; 13%) is primarily due to deactivation of systems and cancellation of related surveillance and maintenance activities. Contributing to the underruns was the receipt of a favorable passback.
Impact: No overall programmatic impact.
Corrective Action: Underruns resulting from efficiencies and passbacks will be used to offset PFP funding shortage.

1.4.3/TP03 PUREX
Description and Cause: The favorable cost variance ($0.1M;25%) is due to work scope was less complex than anticipated.
Impact: No overall programmatic impact.
Corrective Action: Underruns resulting from efficiencies and passbacks will be used to offset PFP funding shortage.

1.4.4/TP04 300 Area/SNM
Description and Cause: The favorable cost variance ($0.3M; 14%) is due to costs not received for completed 303K sampling and analysis work.
Impact: No overall programmatic impact.
Corrective Action: Variance will self correct as costs are received.

1.4.5/TP05, TP06, TP07 PFP
Description and Cause: The unfavorable cost variance ($9.4M; 32%) is due to advanced authorization to perform work to support completion of DNFSB Recommendation 94-1 by May 2002.
Impact: Scope and funding have been identified to support DNFSB commitments. BCR is in process to revise the baseline.
Corrective Action: BWHC was authorized to proceed with work scope prior to approval of BCR FSP-98-003.

1.4.11.1/TP14 HSFP 300 Area Revitalization
Description and Cause: The favorable cost variance ($0.1M; 25%) is due to the efficiencies realized in the minimum safe monitoring and upkeep of the 321, 3706, and 377 facilities.
Impact: No overall programmatic impact.
Corrective Action: Underruns resulting from efficiencies and passbacks will be used to offset PFP funding shortage.

SCHEDULE VARIANCE ANALYSIS: ($ 5.8M)

WBS/PBS **Title**

1.4.1/TP01 **B Plant**

Description and Cause: The unfavorable schedule variance ($1.0M; 8%) is attributed to changes to simplify the design of the Low Level Liquid Waste (LLLW) system. In addition, delays in canyon deactivation earlier this year are still reflected in the variance even though these activities have resumed.

Impact: No impact to overall project.

Corrective Action: A BCR is in process to reflect LLLW design changes, thereby adjusting the schedule and reducing costs. Planning meetings are being held to develop a strategy and execution plan to utilize available resources in a focused and concerted effort to accelerate the B Plant deactivation schedule.

1.4.5/TP05, TP06, TP07 **PFP**

Description and Cause: The unfavorable schedule variance ($1.4M; 5%) is the result of delays due to the FMMR, Tank 241-Z-361 USQ and shifting resources to other non-scheduled priorities.

Impact: DNFSB activities and some enforceable agreements are in jeopardy.

Corrective Action: Corrective actions are in process to lift the FMMR, BCR FSP-98-004 adding the Tank 241-Z-361 scope and funds was approved, and another revision to BCR FSP-98-003, which restores critical funding and revises the completion of DNFSB 94-1 from May 2002 to December 2002 is in process.

1.4.10/TP08 **324/327 Facility Transition**

Description and Cause: The unfavorable schedule variance ($2.8M; 18%) is due to delays on B-Cell equipment and 1A rack removal tasks resulting from the inability to ship grouted containers designated as transuranic (TRU) waste.

Impact: Tri-Party Agreement milestone, M-89-02 will not be completed as scheduled.

Corrective Action: With no established disposal or storage path for this TRU waste, plans for shipment of the containers have been suspended while alternate TRU determination methods, decontamination methods, storage container and storage location options are being researched.

MILESTONE EXCEPTION REPORT

Number/WBS	Level	Milestone Title	Baseline Date	Forecast Date

FORECAST LATE - 0
OVERDUE - 0

FY 1997 OVERDUE - 2

TRP-96-615 RL Provide Recommendations for the Cleanup Of K3 Duct Work 12/31/96 05/31/98

Cause: The K-3 filter rainwater intrusion and WESF closed loop water system piping replacement absorbed all available resources resulting in this work scope not being completed.
Impact: This milestone was missed.
Corrective Action: This work scope is being performed in parallel with the Hot Cell Cleanout work scope.

TRP-97-403 HQ Begin Process Solutions at PFP 06/30/97 09/30/00

Cause: Completion was not met primarily due to project validation delays, significant scope increases, unavailable funding to accelerate installation of the vertical calciner and the FMMR.
Impact: DOE-HQ milestone IP-3.1-022 has been missed.
Corrective Action: A revised schedule and sequence for completion of DNFSB 94-1 activities has been proposed. The FMMR on phase I activities has been lifted; an ORR is being planned for phase II activities.